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BEFORE THE ARIZONA CORPORATION COMMISSION

WILLIAM A. MUNDELL
Chairman
JIM IRVIN
Commissioner
MARC SPITZER
Commissioner

IN THE MATTER OF THE COST OF TELECOMMUNICATIONS ACCESS	**Docket No. T-00000D-00-0672** **NOTICE OF FILING DIRECT TESTIMONY OF WILLIAM H. LEHR AND NATALIE BAKER**

AT&T Communications of the Mountain States, Inc., hereby gives notice that the Direct Testimony of William H. Lehr and Natalie Baker are attached and have been filed this same date.

Dated this 3rd day of July, 2002.

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CERTIFICATE OF SERVICE

I hereby certify that the original and 10 copies of Notice of Filing Direct Testimony of William H. Lehr and Natalie Baker, regarding Docket No. T-00000D-00-0672, were hand delivered this 3rd day of July, 2002, to:

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Docket Control – Utilities Division
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and that a copy of the foregoing was hand-delivered this 3rd day of July, 2002 to the following:

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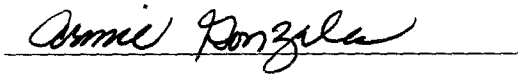

BEFORE THE ARIZONA CORPORATION COMMISSION

* * *

WILLIAM A. MUNDELL
Chairman
JIM IRVIN
Commissioner
MARC SPITZER
Commissioner

In the Matter of:	)	
the Investigation of the Cost of	)	**DOCKET NO. T-00000D-00-0672**
Telecommunications Access	)	

DIRECT TESTIMONY

OF

WILLIAM H. LEHR

ON BEHALF OF

AT&T COMMUNICATIONS OF THE MOUNTAIN STATES, INC.

July 3, 2002

DIRECT TESTIMONY OF WILLIAM H. LEHR

I. EXPERT WITNESS QUALIFICATIONS

Q. PLEASE STATE YOUR NAME AND YOUR OCCUPATION.

A. My name is William H. Lehr. My business address is 94 Hubbard Street, Concord, Massachusetts. I am a research associate in the Center for Technology, Policy, and Industrial Development at the Massachusetts Institute of Technology, Associated Director of the MIT Research Program on Internet and Telecom Convergence, and a research scholar at the Graduate School of Business at Columbia University.

Q. BRIEFLY OUTLINE YOUR EDUCATIONAL BACKGROUND AND BUSINESS EXPERIENCE IN THE TELECOMMUNICATIONS INDUSTRY.

A. My research focuses on the economics of telecommunications and related information technology industries. I have published numerous papers on the economics and regulation of communications industries and have worked as a consultant, including preparing expert testimony on the regulation and economics of the telecommunications industry. In addition to my academic research in the area, I have significant professional experience in the telecommunications industry through positions at consulting firms, at MCI, and as an independent industry consultant. From 1991 through 1996, I was an assistant professor on the faculty of the Graduate School of Business at Columbia University, and since then, have been an adjunct associate research scholar at Columbia University. Since moving to the Boston area in 1996, I have helped direct the research efforts of the MIT Research Program on Internet and Telecom Convergence. I have a Ph.D. (1992) in economics from Stanford University, an

M.B.A. (1985) from Wharton, and an M.S.E. (1984), B.S. (1979), and B.A. (1979) from the University of Pennsylvania.

Q. HAVE YOU TESTIFIED BEFORE PUBLIC UTILITIES COMMISSIONS OR THE FEDERAL COMMUNICATIONS COMMISSION REGARDING TELECOMMUNICATIONS ISSUES?

A. Yes. I have previously filed or given testimony in telecommunications regulatory proceedings in California, Colorado, Florida, Georgia, Louisiana, Massachusetts, Minnesota, New Mexico, New Jersey, New York, Rhode Island, South Carolina, South Dakota, Utah, and Idaho. I have also submitted affidavits and declarations to the Federal Communications Commission ("FCC") in various telecommunications proceedings. The testimony in this proceeding is my first testimony before the Arizona Corporation Commission ("Commission").

II. PURPOSE AND SUMMARY OF TESTIMONY

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of my testimony is to explain the economic principles that ought to guide the setting of regulated rates for intercarrier compensation, including intrastate access charges, in order to promote competition and the public interest. Specifically, I will explain why it is in the public interest to reform intrastate access charges in Arizona by moving current rates in line with the economic costs for providing access services. At their current levels which are substantially above economic costs, intrastate access charges in Arizona (1) force consumers to pay excessive rates for telecommunications services; (2) pose a substantial threat to the progress of telecommunications service competition and investment in the public

communications infrastructure; and (3) unnecessarily complicate and reduce prospects for rapid and efficient regulatory reform.

Therefore, failure to set access rates that mirror economic costs will harm the public interest and will be detrimental to both the incumbent and to competitors (including, of course, IXCs that may be trying to compete in both toll and local service markets – like AT&T – as well as IXCs that may be focusing solely on toll services). While my comments focus principally on Qwest, which is the largest ILEC in the State, the principals I outline apply equally well to all of the ILECs.

My testimony also addresses the public interest implications of a few of the proposals for reforming access charges advanced by Qwest in other states[1] and before the Federal Communications Commission.[2] These include (1) moving the implicit subsidies currently embedded in above-cost access rates into a flat monthly end-user per-line charge (*e.g.* an intrastate subscriber line charge or ISLC, as recommended by Qwest in Nebraska[3]) and (2) setting the same access rates for interstate, intrastate, and local interconnection. When compared with the current access rate structure, each of these proposals would represent an improvement. However, none of these approaches results in setting access rates equal to economic costs, and hence each is at best, a "second best" solution. Moreover, as I discuss more fully below, there are problems associated with each of these proposals.

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[1] For example, In the Matter of the Commission, on its own motion, seeking to determine access costs for US West (n/k/a Qwest Corporation), Before the Nebraska Public Service Commission, Application No. NUSF-17, June 2002.

[2] For example, In the Matter of Developing a Unified Intercarrier Compensation Regime, Before the Federal Communications Commission, CC Docket No. 01-192, April 2001.

[3] See, for example, *Direct Testimony of Jeffrey Rohlfs on Behalf of Qwest Corporation*, In the Matter of the Commission, on its own motion, seeking to determine access costs for US West (n/k/a Qwest Corporation), Before the Nebraska Public Service Commission, Application No. NUSF-17, June 7, 2002.

Q. PLEASE SUMMARIZE THE PARTICULAR POLICY IMPLICATIONS AND THE RECOMMENDATIONS YOU MAKE IN YOUR TESTIMONY.

A. Intrastate access charges are currently substantially above economic costs. In my testimony I explain why setting access charges to their economic cost is in the public interest and is necessary in order to effectively promote telecommunications competition in Arizona. I explain the economic foundations for why access charges should equal the Total Element Long-Run Incremental Cost (TELRIC) for providing access service and why any higher rate is harmful to consumers and the competitive process. I explain how above-cost access charges enhance the ability and incentives of Incumbent Local Exchange Carriers (ILECs) such as Qwest to earn monopoly profits and engage in anticompetitive behavior.

The balance of my testimony is organized into four additional sections. In Section III, I explain why it is important to set prices efficiently and why this means that access charges ought to be set at TELRIC. In Section IV, I identify the harms that result from allowing access charges to exceed TELRIC. Section V examines the impact of moving implicit subsidies embedded in above-cost, usage-sensitive components of the access charges into a flat monthly end-user charge. Section VI comments on Qwest's argument that rates for interstate access, intrastate access, and local interconnection ought to be the same under an efficient intercarrier compensation regime.

III. ACCESS CHARGES SHOULD BE SET AT ECONOMIC COST

Q. ARE INTRASTATE ACCESS CHARGES IN ARIZONA TOO HIGH?

A. Yes. Qwest's intrastate access charges are in excess of $0.03 per switched access minute[4] and intrastate access rates for independent local exchange companies are much higher. This is more than 5 times the level for interstate access (which is currently $0.0055 per switched access minute). Since it is generally accepted that even interstate access rates remain above the economic cost of providing access, it is clear that intrastate access charges are substantially above economic costs.[5] This results in substantial harm to consumers, to telecommunications competition, and to prospects for optimal investment in communications infrastructure. These excessive access charges represent an inefficient tax on consumers and competitors of Qwest.

Q. WHY IS IT SO IMPORTANT TO SET PRICES APPROPRIATELY?

A. Prices are signals. They coordinate the purchasing and production plans of consumers and producers. Even more important, prices guide investment by showing where efforts to innovate and enter a market are most profitable and most socially valued. If prices do not reflect true and current costs, they give the wrong signals.

Q. HOW SHOULD THE PRICE FOR ACCESS BE SET?

A. To provide the correct signals to consumers, investors, and suppliers, prices should be equal to

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[4] Intrastate switched access is $0.041333 per terminating minute and $0.031044 per originating minute (assuming 10 miles of tandem transmission). An end user customer pays both the origination and the termination charge for a retail conversation minute.

[5] As I explain further below, while it is reasonable to expect the economic costs of intrastate and interstate access to be close, these need not be identical. If different, then efficiency calls for setting different rates.

economic costs. When the forces of competition are fully effective, prices are driven to economic costs (which include all of the costs of providing the service as well as an allowance for normal profit or a fair return on invested capital). Therefore, setting the price for monopoly-provided inputs at their economic cost approximates the outcome that would prevail if local access markets were competitive. Setting prices above this level allows the ILEC to earn monopoly profits and is anticompetitive.

Exchange access services are an essential input for originating and terminating toll services in the State. In most cases, Qwest is the sole provider of these services and is *required* by the Telecommunications Act of 1996, state law, and regulators to provide these services to IXCs and others at regulatory-determined rates. The appropriate cost standard to use in setting the level for access charges is the best available estimate of the per-unit Total Element Long-Run Incremental Cost (TELRIC) for providing access services.[6] TELRIC estimates (1) are forward-looking; (2) employ least-cost but currently available technologies; (3) measure incremental costs; (4) are long-run; and (5) are consistent with cost causation.

Q. WHY SHOULD THE PRICE FOR ACCESS BE SET AT PER UNIT TELRIC?

A. Setting the price for access services at per unit TELRIC maximizes the pace at which competition develops and is supported by fundamental economic principles.

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[6] Total Element Long-Run Incremental Cost (TELRIC) is a measure of the total incremental cost incurred in the long run that is caused by the addition (or deletion) of an element from an existing set of elements. This is the appropriate cost concept to be used in establishing the prices for such bottleneck facilities and services as access, UNEs, and interconnection. The FCC adopted TELRIC as the appropriate cost concept to use for the purposes of determining the costs of providing UNEs, interconnection, and basic local exchange service in both its interconnection and universal service orders (See *First Report and Order, In the Matter of Implementation of Local Competition Provisions in the Telecommunications Act of 1996*, CC Docket No. 96-98, Released August 8, 1996, paragraphs 28, 671-678; and *Report and Order In the Matter of the Federal-State Joint Board on Universal Service*, Before the Federal Communications Commission, CC Docket No. 96-45, May 8, 1997, paragraph 250.)

First, by pricing monopoly inputs at their respective per unit TELRICs, consumers of these inputs will receive accurate signals regarding the costs that their consumption is imposing on the ILEC. Thus, such prices provide consumers of these inputs undistorted signals that allow them to make economically efficient resource allocation decisions.

Second, pricing these monopoly inputs at their economically efficient levels avoids distorting the prices of retail-level services that combine these monopoly inputs with other inputs purchased or secured elsewhere. In contrast, any increase in the price above the costs of providing these monopoly inputs will result in higher prices for retail-level services. The resulting high retail rates will dampen usage, the growth of realized telecommunications demand, and, ultimately, the prospects for the emergence of competition in telecommunications markets.

Third, prices that reflect TELRIC send accurate signals to prospective new entrants concerning the costs that the ILECs are incurring to provide unbundled network elements, interconnection, and access services. These accurate signals, in turn, facilitate an efficient entry process that is critical to the development and maintenance of competition. Alternatively, if the price of access is set above TELRIC, prospective entrants would be sent misleading signals regarding the current costs of supplying the inputs. The result is a distorted and inefficient entry process.

Fourth, prices that accurately reflect the incremental cost of providing unbundled network elements, interconnection, and access minimize barriers to entry into the market. Specifically, barriers to entry are said to occur whenever the costs of operations to a potential entrant are inflated above those of the incumbent. Thus, if the ILECs are permitted to charge rates for these inputs that exceed the cost of providing them, barriers to entry would be created,

because the cost to new entrants for these inputs would exceed the costs incurred by the incumbent. The erection of such barriers is inconsistent with the development of a competitive marketplace.

Fifth, by creating parity in the prices charged by the ILEC with the costs it incurs, the prospects for anticompetitive monopoly leveraging are reduced. For example, when prices for Unbundled Network Elements (UNEs), intrastate access services or some other service exceed economic costs, the ILEC may seek to use the excess revenues generated to selectively subsidize below-cost pricing for other services to deter or harm competitors. Pricing monopoly inputs to reflect their underlying TELRICs reduces the ILEC's ability and incentives to engage in anticompetitive behavior, which helps reduce the need for subsequent regulatory intervention.

Sixth, TELRIC is also the appropriate standard for pricing UNEs and interconnection. Using a single and consistent standard for pricing regulated services will enhance the consistency of regulatory policy and thereby increase its effectiveness, reduce its costs, and reduce the likelihood of opportunities for regulatory arbitrage.

Seventh, and finally, setting the price for access at the TELRIC incurred by the ILEC to provide these inputs, commissions will have embraced the long-standing beacon in regulatory economics of cost-causative pricing and will have established congruency between prices and the mandate of Section 252(d)(1) of the Act, which requires that prices be based on cost.

Q. WHAT SHOULD BE THE BASIS FOR ESTIMATING THE PER-UNIT TELRIC FOR PROVIDING ACCESS SERVICES?

A. There are several economic models that have been developed through the regulatory process for estimating TELRIC. The one that I believe offers the best estimates is the HAI model 5.2a.

The HAI model 5.2a provides a robust modeling framework for estimating the TELRICs for each of the elements that are used by the ILEC to provide exchange access services. To avoid enabling the ILEC multiple-recovery of costs, the only elements that should be included in setting the price for access are those relating to the incremental costs of proving access. This includes the usage-sensitive components of local switching, signaling, and local transport, as well as an appropriate allowance for the usage-sensitive components for tandem switching and inter-machine transport.

IV. WHY ARE ACCESS RATES THAT EXCEED ECONOMIC COST SO HARMFUL?

Q. WHY ARE EXCESSIVE ACCESS CHARGES HARMFUL?

A. If prices are set too high, as is the case with access, (1) consumers pay too much for service allowing the ILEC to capture monopoly profits; (2) consumers are discouraged from purchasing the right quantity of services which leads telecommunications service providers to operate collectively at an inefficiently low output level; (3) incentives to invest in infrastructure are inadequate; (4) incentives to invest in infrastructure are distorted, with an excessive share of such investment as does occur being directed towards technologies or services that allow the above-cost access services to be bypassed; and (5) the competitive process is harmed.

Q. WHY IS THE COMPETITIVE PROCESS HARMED?

A. The competitive process cannot function effectively if prices are artificially distorted as they are under the current access charge regime. Moreover, the excessive access charges provide a substantial monopoly subsidy to the dominant incumbent, Qwest, while imposing an inefficient and inequitable tax on consumers and the rest of the industry. The subsidy provides Qwest with

a war chest from whence to fund anticompetitive activities and creates an artificial cost advantage for Qwest *vis a vis* competitors.

Q. WHY DOES QWEST HAVE AN INCENTIVE TO HARM COMPETITION?

A. Qwest has a natural incentive to seek to prevent erosion of its dominant market position. As we show below, this position allows Qwest to charge prices that substantially exceed the economic costs of providing service, thereby allowing Qwest to earn monopoly profits. In addition, Qwest hopes to enter additional markets where it will be able to leverage its near-monopoly position over local access and service markets (*e.g.*, efforts to gain premature S271 relief to enter intrastate interLATA toll services and efforts to capture a dominant share of broadband Internet access services). It is rational and profit-maximizing for Qwest to invest some of its current profits in seeking to slow the progress of competition to preserve its market power for as long as possible.

Qwest can be expected to resist attempts to eliminate regulatory and economic entry barriers and to resist complying with pro-competitive policies intended to level-the-playing-field for competitors. Qwest has an incentive to deter entry into markets where it competes already or seeks to compete and by seeking to raise the costs incurred by rivals it already faces.

If the market were already competitive, Qwest's (and the incentives of other carriers) to engage in anticompetitive behavior would be constrained by market forces. That is the beauty of competition. In the absence of adequate competition, however, strong regulatory oversight is needed to limit the ILEC's ability to abuse its market power. However, in recognition of the overwhelming benefits from competition and the limitations of regulatory oversight, we are in the midst of a national (even global) effort to transition from telecommunications markets managed by regulators to markets managed by competition. For the market process to succeed,

regulatory reform is necessary.

Q. HOW CAN QWEST TAKE ADVANTAGE OF THE EXCESSIVE ACCESS CHARGES TO HARM COMPETITION?

A. The excess access charges provide Qwest with resources to fund its investments in anticompetitive activities. While it is true that eliminating the access subsidy will not eliminate Qwest's incentive nor ability to engage in anticompetitive activities, it will reduce incentives and will eliminate one important source of funding Qwest now draws from in unfairly opposing competition.

Q. WHAT ARE SOME OF THE GENERIC STRATEGIES THAT AN ILEC MAY USE TO HARM COMPETITION?

A. There are numerous strategies which an ILEC or any similarly dominant incumbent may engage in to harm competition. These include both price and non-price strategies.[7] The price strategies

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[7] Indeed, BOC affiants in proceedings seeking S271 relief have admitted both the incentive and ability of ILECs to engage in anticompetitive activities. For example, in an affidavit in support of Pacific Bell's efforts to gain S271 relief, Dr. Alfred Kahn and Dr. Timothy Tardiff noted that ILECs have an incentive to discriminate against downstream rivals:

> "None of this is to deny -- nor did we in our Affidavit deny -- the incentive of ILECs to discriminate, subtly or otherwise, in the quality of access and other such services they provide to their rivals and the need for regulatory safeguards -- the nature of which we spelled out at length -- against such practices."

(See *Rebuttal Affidavit of A.E. Kahn and T.J. Tardiff in Support of Pacific Bell's Draft Application for Authority to Provide InterLATA Services in California*, May 20, 1998, at paragraph 19).

Similarly, in an affidavit in support of BellSouth, Dr. Glen Woroch noted that:

> "[t]here are several potential anticompetitive practices which an integrated ILEC such as BellSouth might theoretically take."

and

> "Strategic behavior by an ILEC would become a concern ... were its control of bottleneck network services used to discourage entry into downstream markets, especially retail local exchange and long distance."

(See *Affidavit of Glenn A. Woroch on Behalf of BellSouth*, In the Matter of Application of BellSouth Corporation, BellSouth

are only the most obvious: If the prices charged for essential inputs are above efficient levels, then entry will be deterred. When access services are bundled with or tied to the sale of other services, the ILEC obtains a cost advantage that can be used to subsidize unfair competition against a competitor. This cost advantage can be used to subsidize prices below what competitors can afford to match or to offer quality that competitors cannot match without raising prices. While imputation rules that specify a pricing floor are needed and do help limit the first type of leveraging, they are imperfect and may not effectively deter the second type.

In addition to anticompetitive pricing strategies, an ILEC can avail itself of a wide range of nonprice strategies which are often more difficult to detect and deter. Entry into local exchange services is difficult because it requires a huge investment and depends on cooperation from a hostile competitor. While the Act provides the public policy framework for addressing these issues (in the Section 251 requirements), implementation of these rules has proven to be difficult.

The incumbent is likely to seek to protect its market position by "raising its rivals' costs," a generic expression for a whole class of price and non-price predation and foreclosure strategies.[8] The ILEC can raise an entrant's costs by manipulating any of the price or non-price

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Telecommunications, Inc., and BellSouth Long Distance, Inc., for Provision on In-region, InterLATA Services in Louisiana, CC Docket No. 98-121, (November 1997) at paragraph 23 and 8.)

[8] An upstream monopolist (*i.e.*, the BOC which controls local exchange access) generally will have an incentive to discriminate against downstream rivals (*i.e.*, interLATA competitors) as explained in recent papers by Nicholas Economides (see Nicholas Economides, "The Incentive for Non-Price Discrimination by an Input Monopolist," 16 *Int'l J. Indus.Org.* 271 (1998) and by Randolph Beard, David Kaserman and John Mayo (see Randolph Beard, David Kaserman and John Mayo, "Regulation, Vertical Integration and Sabotage," Mimeograph, University of Tennessee, March 1999). The findings of these analyses stand in contrast to the result proposed in a working paper by David Sibley and Dennis Weisman (see David Sibley and Dennis Weisman, "Competitive Incentives of Vertically Integrated Local Exchange Carriers: An Economic and Policy Analysis," *Journal of Policy Analysis and Management*, 17 (1997). Sibley and Weisman err by assuming that the downstream (interLATA) subsidiary of the BOC maximizes its own profits and fails to take account of the consequences of its decisions for the profits of the integrated company. Such an assumption is inconsistent with rational value maximization.

terms associated with the essential inputs which the entrant requires to effectively compete in the market (*e.g.,* interconnection services, UNEs or wholesale versions of retail services).[9] In addition, the ILEC can provide inferior-quality service unless regulators are vigilant and contracts regarding interconnection, UNEs, and wholesale services are suitably specific in their service quality requirements.[10]

Alternatively, an ILEC may seek to create "customer switching costs" in order to make it more difficult for an entrant to attract new customers-for example, anything which damages the reputation of the new entrant (*e.g.,* poor-quality service due to slow delivery, maintenance or repair, or noisy local loop facilities),[11] makes it difficult for a customer to learn about new entrants (*e.g.,* misleading advertising by the ILEC), or makes it difficult for a customer who wishes to change suppliers to actually do so (*e.g.,* cumbersome procedures for effecting the transfer of customers to a new local service provider).

In addition to the direct strategies cited above, there are also many indirect strategies which can be as effective in slowing the emergence of local exchange competition. These indirect strategies are even harder to detect and hence even more difficult to deter. Four classes of examples illustrate some of the strategies. First, because an entrant requires the

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[9] See *Affidavits of Jack Meek and Edward Mulligan Filed on Behalf of AT&T Corp.*, describing Bell Atlantic's failure to provide loop hot cuts in a commercially reasonable manner.

[10] For example, Ameritech attempted to frustrate the Michigan Public Service Commission's June 26, 1996 order to implement intraLATA toll dialing parity within thirty days. The BOC was required to grant a 55 percent discount on access charges in central offices where it failed to provide such parity. Ameritech actually chose to reduce access charges by 55 percent rather than to expand dialing parity beyond the 10 percent of access lines for which it had already implemented dialing parity. (See Ameritech News Release, "Ameritech to Cut Access Rates to Long Distance Companies," July 26, 1996; and Appellant Ameritech Michigan's Brief on the Merits at 12 (stating that "Ameritech Complied With the Commission's June 26, 1996 Order By Implementing the 55 percent Access Charge Discount")(January 2, 1997) filed in *Ameritech Michigan v. Michigan Public Service Com'n*, 583 N.W.2d 458 (1998), *aff'd in part, rev'd in part sub nom In re MCI Telecommunications Complaint*, 596 N.W.2d 164 (Mich. 1999).

[11] See *Affidiavits of Robert Aquilina and Edward Mulligan Filed on Behalf of AT&T Corp.*

ILEC's cooperation in order to arrange interconnection, purchase UNEs, and resell wholesale services, the ILEC can devote insufficient resources to the task of sustaining this cooperation. The promotion of competition will require active cooperation by the ILEC; its neglect or slow response time, therefore, can be quite effective at thwarting competition. As Professor Marius Schwartz has stressed, such anticompetitive conduct can be difficult to police, because "the great asymmetry of information between an ILEC and outsiders about what constitutes unreasonable delay in implementing new systems is likely to make enforcers leery of imposing heavy penalties for perceived foot-dragging."[12]

Second, the ILEC may exploit its ability to discriminate selectively. Because the ILEC controls the timing, design, and scope of its facility upgrades and the services it offers, it can manipulate these activities strategically to affect rivals differentially. It will be quite difficult to prove that an ILEC delayed implementation of a feature required by an entrant because it wished to harm the entrant as opposed to its technical or other inability to respond sooner. Alternatively, an ILEC can choose the level of quality which it offers to all entrants in such a way as to harm particular entrants selectively. For example, the ILEC may argue that it is implementing a minimal functionality, "lowest common denominator" systems interface in order to avoid discriminating against limited-capability entrants when the real motivation is to deny access to increased functionality to more threatening competitors.

Third, seemingly "nondiscriminatory" quality degradation can be discriminatory in the following important sense: Entrants to local exchange services must establish a reputation for quality in order to attract customers, and a reduction in overall quality that coincides with the

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[12] *Supplemental Affidavit of Marius Schwartz*, ¶ 38, *supra*, note 12.

onset of competition would substantially increase the difficulty of acquiring such a reputation.[13] Similarly, local service quality problems that are associated with the onset of competition will mislead consumers regarding the benefits of competition and may make it more difficult for state commissions to implement the requirements of the Act. Finally, a reduction in quality could damage the investments of long distance carriers in their reputations for quality service, narrowing any consumer perceptions that long distance carriers offer better service than the ILEC.

Fourth, while the Act requires the ILEC to cooperate, the Act is quite complicated and its provisions and requirements are unlikely to be fully understood by the ILEC's employees. An ILEC does not need to tell its employees to be uncooperative or to try to mislead customers about the likely impact of competition. Indeed, many of the employees may decide to behave in this way on their own. The ILEC's employees are likely to associate the onset of competition with increased job insecurity and the language of healthy business competition often characterizes competitors as "the enemy." Therefore, by failing to devote adequate resources to supervising or educating employees of their obligations under the Act, FCC regulations and arbitrated decisions, an ILEC may be able to implement a decentralized, anticompetitive strategy or have it implemented on its behalf by its employees. This is especially difficult to protect against because it does not require centralized coordination.

Whether the ILEC uses neglect, fails to supervise workers adequately, strategically chooses "nondiscriminatory" service standards so as to harm competitors, allows overall quality to degrade, mobilizes opposition to competition, or uses other anticompetitive strategies, the

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[13] See *Affidavits of Robert Aquilina and Edward Mulligan Filed on Behalf of AT&T Corp.*

effect will be the same: *Progress toward effective competition will be slowed.*

Q. HOW ARE CONSUMERS HARMED BY ACCESS CHARGES THAT EXCEED COSTS.

A. Consumers are harmed directly by being forced to pay prices that exceed the costs of providing service. The excessive access charges imposed on IXCs are passed through to consumers in the form of higher toll rates.[14] These above-cost prices result in substantial deadweight losses as consumers are discouraged from purchasing the optimal level of services.

Consumers are also harmed indirectly because of the harm to the competitive process. Competition forces service providers to be responsive to consumer demand which results in improved service quality, expanded product choice, and lower prices. Prices are lower both because competition forces prices towards the costs of the most efficient provider and this pressure drives service providers to continuously strive to lower costs and improve efficiency. These benefits are denied to consumers when the competitive process is harmed.

Q. IS THE HARM WORSE BECAUSE OF THE LIMITED EXTENT OF COMPETITION IN THE STATE?

A. Of course. Currently, Qwest maintains a near monopoly over local exchange access and telephone service in its serving areas in Arizona. In spite of aggressive public policies to promote competition in the face of an entrenched incumbent (*e.g.*, consider the pro-competitive

[14] Interstate long distance services are effectively competitive. Therefore, IXCs must reflect the cost of excessive access rates in their long distance toll rates. If the IXCs did not pass on the higher access rates, the IXCs would fail to recover their costs, which is not sustainable over the long run. Below, I explain how a similar argument fails to apply in the case of the ILEC.

provisions of the Telecommunications Act of 1996), Qwest still controls over 90% of the switched access lines in Arizona.[15] Qwest's near-monopoly means that the excess profits captured by Qwest due to the access rates are quite large.

Q. HOW DO ABOVE-COST ACCESS CHARGES HARM INCENTIVES TO INVEST IN INFRASTRUCTURE?

A. Above-cost access charges harm investment incentives in two ways. First, they impose a tax on toll services that make use of those access services. This reduces demand for toll services and lowers the prospective revenue available to recover the costs of investments in infrastructure, and hence, reduces overall incentives to invest in infrastructure. Second, the above-cost access charges tilt the relative economics of infrastructure investment, unfairly favoring investments that allow carriers or end-users to bypass the access charges. Such inefficient bypass investment may take the form of efforts to disguise toll traffic as local traffic, excess investment, or use of alternative services such as Voice-over-IP or wireless calling services.

Q. ARE THESE PRINCIPLES BROADLY RECOGNIZED?

A. Yes. The basic economic principles that efficient pricing favors competition and above-cost

[15] As of June 30, 2001, CLECs provided service to only 7% of the end-user lines in Arizona (see Table 9.5 in *Trends in Telephone Service*, Federal Communications Commission, May 22, 2002). Since CLEC's tend to concentrate on serving business customers, the share of residential end-user customers served by CLECs is even smaller. Moreover, such competition, to the extent it exists, depends heavily on leased facilities provided by Qwest.

prices harm both consumers and competition are well understood.[16]

V. ADVISABILITY OF RECOVERING IMPLICIT SUBSIDIES EMBEDDED IN USAGE-SENSITIVE ACCESS CHARGES VIA A FLAT MONTLY END-USER CHARGE

Q. IS IT BETTER TO RECOVER A SUBSIDY IN A USAGE-SENSITIVE RATE ELEMENT THAT RAISES THE PRICE OF ACCESS ABOVE ITS ECONOMIC COST, OR IN A FLAT RATE END-USER CHARGE?

A. Economists generally agree that it is more efficient to recover a subsidy in the form of a flat rate end-user charge than in the form of a usage-sensitive element like the CCL that is included in per minute access charges. To understand why this is the case, it is useful to consider the two-stage decision process followed by an end-user. First, an end-user decides whether or not to subscribe to telephone service. Second, if the end-user subscribes, then the end-user decides on an on-going basis how to use the telephone (*i.e.,* whether to make calls or not). The decision to subscribe is based on the user's assessment of the benefits from subscribership which derive from both the actual calls the user will make and receive, as well as the option to make and receive calls. These prospective benefits are compared with the subscriber's expected costs for the service which include any flat monthly charges as well as an estimate of expected usage-related charges. As long as the expected benefits exceed the expected costs, the consumer will

[16] There is a long and extensive economics literature documenting the economic inefficiency of excessive access charges. See for example, Congressional Budget Office, The Changing Telephone Industry: Accesss Charges, Universal Service, and Local Rates, June 1984; Kahn, Alfred E., "The Road to More Intelligent Telephone Pricing, " Yale Journal on Regulation Vol. 1 (1984) , pp. 139-157; Kahn, Alfred E. and William B. Shaw, "Current Issues in Telecommunications Regulation: Pricing," Yale Journal on Regulation, Vol. 4 (1987) pp. 191-256; Kaserman, David. L. and John W. Mayo, (1994) "Long Distance Telecommunications: Expectations and Realizations in the Post-Divestiture Period," in Incentive Regulation for Public Utilities, Michael A. Crew, Editor, 1994, pp. 83-113; or Wenders, John T., The Economics of Telecommunications: Theory and Policy, Ballinger Publishing Company, Cambridge, MA, 1987.

subscribe.

For those consumers that subscribe, actual telephone usage is determined on an on-going basis. The end-user's usage behavior is determined by an assessment of whether the benefits of marginal usage (*e.g.,* making a call) exceed the marginal costs. Increasing the marginal cost of making toll calls by adding an implicit subsidy to a usage-sensitive access charge deters marginal usage, thereby suppressing demand for both usage and subscribership.

In contrast, recovering the same subsidy in the form of a flat monthly fee, does not affect marginal usage by consumers who subscribe to the service; and, only reduces subscribership for those marginal consumers whose personal subscribership cost/benefit calculus is substantively altered by the addition of the flat rate fee.

Because telephone access is viewed by most consumers as an essential service, demand for subscribership is quite inelastic (not price sensitive), and hence, is unlikely to be affected significantly unless the contemplated fixed monthly charge is quite large.

Recognition of this general proposition motivated the introduction of the end-user Subscriber Line Charge (SLC), as a more economically efficient way to recover the non-traffic sensitive costs of providing local access services.

Q. DOES THIS MEAN THAT IT IS IN THE PUBLIC INTEREST TO RECOVER ANY EXCESS OF CURRENT INTRASTATE ACCESS CHARGES OVER THE ECONOMIC COSTS OF PROVIDING ACCESS IN THE FORM OF A FLAT MONTHLY END-USER CHARGE?

A. No. Although the flat monthly fee is superior to the usage-sensitive approach for recovering non-traffic sensitive costs, this does not mean that the full difference in intrastate access charges and the costs of providing access (as measured by TELRIC) should be recovered. It is

reasonable to believe that current access charges include a contribution to Qwest's monopoly profits. Any subsidy that is not directly related to the recovery of the non-traffic sensitive portion of the economic costs of providing access is inefficient and harms consumers and competition. From an economist's perspective, if a flat monthly fee is adopted, it should be set so that the fee plus usage fees recover the total TELRIC of providing access and no more.

Q. WHY HAS QWEST RECOMMEND IN OTHER CONTEXTS INTRODUCING A FLAT MONTHLY LINE CHARGE TO RECOVER IMPLICIT SUBSIDY REVENUE THAT WOULD OTHERWISE BE ELIMINATED IF ACCESS CHARGES WERE REFORMED?

A. In other proceedings, Qwest has filed testimony that indicates they agree that above cost intrastate access charges are inefficient and contrary to the public interest.[17] However, as noted above, these charges are also an important source of implicit subsidies for Qwest. Qwest has a natural and obvious incentive to retain or even expand these subsidies while at the same time reducing any potential adverse effects that the current regime poses for Qwest's ability to respond to CLEC competition.

Q. ARE ACCESS SUBSIDIES NECESSARY TO GUARANTEE UNIVERSAL SERVICE?

A. No. A service is subsidized if the incremental revenue associated with that service is less than the incremental cost of providing the service. Currently, it is clear that there are many services that are priced significantly above economic costs (*e.g.,* single business line rates and vertical

[17] See, for example, *Direct Testimony of Jeffrey Rohlfs on Behalf of Qwest Corporation*, In the Matter of the Commission, on its own motion, seeking to determine access costs for US West (n/k/a Qwest Corporation), Before the Nebraska Public Service Commission, Application No. NUSF-17, June 7, 2002.

features are generally believed to exceed incremental costs); however, it is uncertain whether any service is presently priced below its economic cost, as appropriately measured by TELRIC.

VI. NEED FOR A SINGLE RATE FOR CARRIER COMPENSATION

Q. WOULD THE PUBLIC INTEREST BE PROMOTED IF RATES FOR DIFFERENT TYPES OF CARRIER COMPENSATION, INCLUDING INTRASTATE ACCESS, INTERSTATE ACCESS, AND LOCAL TERMINATION, WERE MOVED CLOSER IN LINE WITH THE LOWEST EXISTING RATE AMONG THE THREE?

A. Yes. While it appears that current rates for intrastate access, interstate access, and local termination are all above the economic cost of providing these services, the deviation for some rates (*e.g.,* intrastate access) is substantially greater than for other rates (*e.g.,* interstate acess). Economic efficiency, prospects for competition, and the public interest would be promoted if those rates that are substantially above-cost were reduced closer to the level of the lowest existing rate currently in effect.

Q. PLEASE EXPLAIN WHY IT IS NOT NECESSARY TO HAVE A SINGLE RATE FOR INTERSTATE ACCESS, INTRASTATE ACCESS, AND LOCAL INTERCONNECTION?

A. While it is true that the current rate structure for intercarrier compensation has rates that differ much more than the underlying cost for different types of carrier interconnection, this does not mean that these costs are identical. Moreover, since none of the rates are currently at economic cost, all would benefit from being lowered. While it would be best to lower all of the rates to economic cost as soon as possible, the Commission should not be deterred from lowering these

rates at different times, as required by the exigencies of regulatory proceedings. Furthermore, once the rates for different types of carrier compensation are set equal to economic cost, they may differ because the economic costs may differ.

Although these services share many features in common, they may have different cost implications that ought to be taken into account when setting rates. For example, the amount of tandem switching and transport involved in terminating an interstate call may differ from what is involved in terminating an intrastate call because of the typical routing and interconnection architecture among carriers of intrastate and interstate calls. Although I do not know precisely what this difference might be, there is no reason to presume that the costs are identical.

If, upon examination, it can be shown that the difference in economic cost between different types of access services are trivial, then it may be beneficial to adopt a common rate to simplify metering and regulatory enforcement costs (*e.g.*, eliminate the need to separate traffic for the purpose of assigning different access rates).

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes.

BEFORE THE ARIZONA CORPORATION COMMISSION

WILLIAM A. MUNDELL
Chairman
JIM IRVIN
Commissioner
MARC SPITZER
Commissioner

IN THE MATTER OF THE COST OF TELECOMMUNICATIONS ACCESS.	)	**DOCKET NO. T-00000D-00-0672**

DIRECT TESTIMONY

OF

NATALIE J. BAKER

ON BEHALF

OF

AT&T COMMUNICATIONS OF THE MOUNTAIN STATES, INC.

JULY 3, 2002

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I. Introduction, Purpose, and Organization of the Testimony

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Natalie J. Baker. My business address is 1875 Lawrence Street, Denver, Colorado 80209.

Q. BY WHO ARE YOU EMPLOYED AND IN WHAT POSITION?

A. I am employed by AT&T Corp. as District Manager for Local Services and Access Management in the Network System Division for the company's Western Region.

Q. WHAT ARE YOUR DUTIES AND RESPONSIBILITIES IN THAT CAPACITY?

A. My primary responsibility is management of the cost to AT&T for local network elements, interconnection, and carrier access charges in the company's fourteen-state Western Region. In that capacity, and relevant here, I am required to analyze public policy and the attendant wholesale prices for exchange access and network elements charged to AT&T. Over the last six-plus years, I have participated in arbitrations, permanent cost cases, universal service, and access reform dockets before state commissions in the fourteen-state Qwest Region. I have also supported the AT&T position through industry workshops, *ex parte* meetings, and preparation of written comments in various state and federal regulatory and legislative proceedings.

Q. WHAT IS YOUR PROFESSIONAL AND EDUCATIONAL EXPERIENCE?

A. My tenure in telecommunications began in 1990 with AT&T Wireless Services (then McCaw Cellular Communications) where I held several positions including District Manager of Resellers, District Manager of Indirect Distribution, and Retail Development Manager. On January 1, 1996, I assumed the position of Manager with AT&T's Local Infrastructure and Access Management organization in the Network Computing and Systems Division. In December 1998, I was promoted to District Manager, Local Services and Access Management for the Western Region in the Network Systems Division of the company.

I hold a Ph.D. in Public Affairs from the University of Colorado and Master's degrees in Public Administration and Business Administration from the University of Colorado and the University of Denver respectively. Additionally, I hold a B.S. in Sociology / Education from Indiana University, Bloomington, Indiana.

Q. HAVE YOU PARTCIPATED IN OTHER REGULATORY PROCEEDINGS IN ARIZONA?

A. Yes. I testified before the Arizona Corporation Commission (ACC) on behalf of AT&T in the consolidated cost proceeding for unbundled network elements ("UNEs") and local interconnection in 1996, Docket No. U-3021-96-488 *et al.* Additionally, I am responsible for the overall management of AT&T's advocacy in the current Arizona Wholesale Pricing proceeding (Docket No. T-00000A-00-

194). Since its inception in March 1997, I have been participating on AT&T's behalf in Docket No. RT 00000H-97-0137 for the reform / revision of the universal service rules in Arizona wherein I authored most recently, AT&T's comments filed on September 24, 2001.[1] Finally, I am the principal author of the comments filed on behalf of AT&T on March 8, 2002 in the instant docket to which I will make frequent reference in this testimony.[2]

Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY?

A. The purpose of my testimony is two-fold. Broadly construed, my testimony places this critically important reform in the broader context -- economic, technological, social, and political -- of the transition to competitive markets in the provision of local service mandated by the federal Telecommunications Reform Act of 1996 ("Act") and the FCC's Orders that implement it.

More narrowly, and in accordance with the ACC's Procedural Order, dated May 21st, 2002, I address Arizona-specific issues related primarily to the reform of exchange access services. In doing so, I provide the ACC with a map for reform that promotes the twin goals of efficiency (in investment and use) and non-discrimination. Additionally, AT&T's approach to reform acknowledges the long-standing tension between efficiency and equity in telecommunications embodied in the quest for universal service.

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[1] Before the Arizona Corporation Commission. In the Matter of the Review of the Arizona Universal Service Fund Rules. Docket No. RT-00000H-97-01337. AT&T's Comments on the Need for Revisions to the Arizona Universal Service Fund, September 24, 2001.

[2] Before the Arizona Corporation Commission. In the Matter of the Cost of Telecommunications Access. Docket No. T-00000D-00-0672. Answers of AT&T to Questions Contained in December 3, 2001 Procedural Order (hereinafter "AT&T's Comments")

Q. HOW IS YOUR TESTIMONY ORGANIZED?

A. To address the specific policy issues outlined by the ACC, and the totality of the context in which they exist, I have divided my testimony into five sections. Following this introductory section, Section II, provides a summary of the genesis and evolution of the access charge regime. In section III, I explain the inextricable relationship between access reform and the public interest generally and in Arizona specifically. Section IV addresses the fundamental policy and economic constructs essential for successful transition to a competitive environment, viz., efficiency and non-discrimination. This section parallels the Direct Testimony of AT&T witness, Dr. William Lehr, which develops the underlying economic logic of reform and the importance of reform in the transition to a competitive local market. Proceeding directly from the previous sections of my testimony and that of Dr. Lehr, Section V, I provide the ACC with AT&T's recommendation for a swift and practical prescription for comprehensive reform of the access charge regime in Arizona.

II. Context Counts: An Historical Perspective of Access Charges

Q. PLEASE PROVIDE THE HISTORICAL CONTEXT FOR THE ACCESS CHARGE REGIME

A. The history of access charges has been a history of what is generally referred to as a "subsidy" mechanism founded upon certain assumptions regarding the types of telephone services available, their cost, their perceived social importance, and their need for financial support.

First, in the era of the Bell system monopoly, there were initially only two categories of service: local voice service and long distance service. Both were monopoly services. Prices were set by regulators and those prices were not constrained by the presence of competitive alternatives that could be priced on a market-driven basis. Second, telephony transport was distance sensitive and longer haul voice calls were, in fact, more costly than shorter haul calls. Third, the customers' community of interest was perceived to be local and the need (or at least perceived need) of the average consumer to communicate rapidly (*i.e.*, by telephone) beyond his or her immediate locality was deemed exceptional.

In this environment, local and long distance pricing could be set to recover cost as though it were a zero sum game. Residual pricing could be done in either direction. The price of local voice service could be set at what regulatory authorities thought to be socially optimal levels *(i.e.*, to promote universal service) and the price of long distance voice service was set residually to recover all revenues believed to be necessary to sustain the entire network. Alternatively, the price of long distance was set at the revenue maximizing level and local prices were set residually at the lowest level sufficient to recover the residual revenue requirement. Under either method, long distance voice subsidized local voice services.

Q. WHAT HAPPENED TO THIS SYSTEM OF CROSS-SUBSIDY AFTER THE BREAK-UP OF THE BELL SYSTEM INTO LOCAL AND LONG DISTANCE COMPANIES?

A. Following divestiture, the system of direct subsidy of local calls by long distance calls was modified to accommodate the creation of an environment divided between local and long distance carriers. Access charges paid by long distance carriers were a direct substitute for the system of direct recovery of revenues from high end user charges to consumers for toll calls. The practical effects, however, were largely the same: consumers making calls over relatively long geographical distances were "subsidizing" consumers making calls over shorter distances.

Q. SINCE ANY SUBSIDY CREATES A PRICING DISTORTION(S), WHAT CHARACTERIZES (FOR LACK OF A BETTER TERM) A "PERFECT" SUBSIDY MECHANISM?

A. By "perfect," I mean to convey the notion that the subsidy decisions undertaken to achieve public policy goals are, within their context, rational: that they are designed to avoid all other price and cost distortions aside from those described above, and that they succeed in avoiding additional distortions.

Moreover, their continuance, through systematic program evaluation, is justified by having achieved the policy ends for which they were intended in the first instance. That is, recognizing that unfettered markets produce winners *and* losers, public policy is predicated on mitigating the tension between efficiency *and* equity -- here universal service.

Q. WAS THIS SYSTEM EVER AS "PERFECT"AS YOU HAVE CHARACTERIZED IT ABOVE?

A. No. The reality is that this "assumed" perfection never existed. In the modern world, the assumptions underlying the old two-service model for access charges calculations have been crumbling for years, and as they have done so, additional market distortions and sub-optimal outcomes have increased.

Q. DID THIS SUBSIDY SYSTEM FOSTER COST AND PRICE DISTORTIONS THAT EXCEEDED THE CONTROL OF REGULATORS?

A. Yes. The classic case against the access subsidy system has been made innumerable times, but it is helpful to summarize it here and to stress some increasingly important points. First, setting usage-based access charges above the economic cost of providing access services causes two direct and undesirable distortions in the market which occur at (a) the wholesale or access end of the market, and (b) the output or long distance end of the market. In the access market, excessive access charges encourage socially sub-optimal usage and investment in sub-optimal alternative provisioning arrangements that by-pass local exchange companies' switch access services. Inefficient by-pass has harmful social effects that at once cause expenditures on needless alternatives to the existing telecommunications systems and inefficiently suppressed usage of the network's assets. In both instances the result is the same -- increased prices.

In the long distance or output market, above cost access charges push long distance prices above the true social costs of providing those services. Here again, the effect is to discourage consumers from placing long distance calls. In

both cases the result is the same -- higher prices -- for wholesale and retail customers.

Q. IS THERE A GEOGRAPHIC DIMENSION THAT HAS EXASCERBATED REFORM OF THE ACCESS CHARGE REGIME?

A. Yes. Missing from the previous arguments is the justification for extracting the subsidy revenue from various long distance toll markets. There are two causes for the selection of long distance voice services as the source of revenue used to prop up local voice revenue, both historic, neither economic. First, toll services and their access components have been tapped for subsidy revenues since the days when only long distance and local voce services existed and when long distance calls were viewed as a luxury good. Second, with divestiture, incumbent local exchange carriers (ILECs) were barred from offering interLATA services while interexchange carriers (IXCs) were either barred absolutely from offering local and intraLATA services or were, at the very least, barred from competing on a nondiscriminatory basis. The LATA (*i.e.*, local access and transport area) was defined by the divestiture court in terms of "community of interest" thereby preserving without further analysis the presumption that calls within a community of interest had a different social value than calls beyond it.

Q. WHY IT IS IMPOSSIBLE FOR REGULATORS TO MAINTAIN THE OLD REGIME OF IMPLICIT CROSS-SUBSIDIES TODAY?

A. Statutory concerns aside (momentarily), most obviously, it has not been true for some time that that there are only two kinds of telephone service: local voice and

long distance voice. For example, and pertinent here, special access services including T-1 (a.k.a. DS-1) and T-3 (a.k.a. DS-3) loops, priced at so-called "competitive" levels, have been a source of dispute over "bypass" for decades. In addition, there are a variety of voice-related features and functionalities that are made available to customers, based upon market demand, at market-regulated prices. Call waiting, three-way-calling, voice-mail boxes, automatic call-back, and number identification features have been part of the customer scene for some time and have joined older services such as operator assist and card calling. Additionally, since most of these retail services take advantage of extremely low-cost functionalities of the switch (a computer that has shared in the extraordinarily declining costs of all of this technology) they are extremely lucrative. To these by now well-known services, an explosively growing number of data services are added. Other ways of "reinventing" and utilizing network assets are also being developed and deployed -- the most obvious example is *x*DSL service.

What the ACC should conclude from this proliferation of services is that the problems of rationally identifying both the need for (*i.e.,* the target population for subsidy) and the source of subsidies has become insurmountable. That is because each component of the analysis is problematic: What is the "service" in need of subsidy? Is it bare bones local service or is it local service in the aggregate, as customers purchase it, with individually varying features and functions that are themselves highly profitable?

Another important line of inquiry and its attendant analysis begs this question: On average, is it profitable for carriers to serve their customer base?[3] If yes, but even after this reform process concludes, switched access still bears excess contribution, who or what exactly is getting subsidized? And, why?

Q. IS THERE ANY VESTIGE OF THE GEOGRPAHIC DIMENSION THAT JUSTIFIES EXCESSIVE ACCESS CHARGES TODAY?

A. No. Changing technology in the 1980s and into the 1990s increasingly broke down the validity of the underlying assumption regarding both distance sensitivity of transporting calls and the rationality of the assumed, but untested "community" of interest theory. With the introduction of fiber optics and digital switching, transport increasingly became distance insensitive. With the development of new services and technologies, the concept of what was a local call became increasingly fuzzy. An "800" call could reach the building next door or around the world in the same time, for the same price, and largely for the same cost. In sum, intraLATA access charges were designed to enable the ILEC to continue to tax the consumer for certain calls in order to "subsidize" others in the same manner it had done prior to the introduction of competition.

The development of intraLATA charges, however, constituted a watershed event in exposing the economic irrationality of the existing subsidy system. It raised the question: Why should calls between certain geographic points be

[3] AT&T is not aware of any proceeding or other such allegation whereby a carrier's rates have been determined to be, on average, "underwater" or where confiscation has occurred. Thus, anecdotal evidence suggests that all carriers are profitable.

deemed to have less social utility than other calls, even than other calls of the same distance but covering different points?

Q. IS THERE A POLITICAL DIMESION THAT HAS CONFOUNDED THE REFORM OF ACCESS CHARGES IN RECENT YEARS?

A. Yes. Between divestiture and the passage of the 1996 Act, the price of local service has increasingly become immersed in local politics. That is, local authorities have generally been loath to allow any increases for local service, choosing instead to preserve ILEC revenue streams through the mistaken approach (presumed invisible to the consumer) by increasing access charges. Since the passage of the Act in 1996, and in an effort to preserve current revenue streams, the geographic dimension of the traditional justification has again been revised but it is the same refrain, different verse. That is, reform has been thwarted by a more pernicious but no less analytically deficient explanation --- the paralyzing specter of the rural customer and the poor being forced to pay exorbitant rates for local service. Moreover, the so-called "digital divide" is a construct that is elastic enough and arbitrary enough to fit any political agenda.[4]

Q. CAN REGULATORS CONTINUE TO DRAW UPON SWITCHED ACCESS REVENUES FOR SIMILAR POLICY PURPOSES TODAY?

[4] Significantly, in the wake of the demise of the dot. coms coupled with the recent travails of the telecommunications industry, the digital divide "campaign" has abated. Hopefully, in its place, more responsible analysis, such as that provided in the testimony of Dr. Lehr in this docket, will again gain the attention of regulators.

A. No. The 1996 Act prohibits implicit subsidies,[5] and this is a prohibition that has been recently upheld by the Fifth Circuit Court of Appeals. [6] Thus, the maintenance of switched access at levels above economic cost means that some subsidy remains.

Q. IS THERE ANY EVIDENCE THAT THE PRICING DISTORTIONS COUPLED WITH GEOGRAPHIC AND POLITICAL DIMENSIONS OF ACCESS CHARGES HAVE ACHIEVED THE POLICY GOAL FOR WHICH THEY WERE INTENDED IN ARIZONA?

A. No. Arizona's switched access rates are among the highest in the nation (more about this later). Preliminarily, it is true that household subscription rates have increased over time for basic telephone service. But, if a direct correlation between high access and the rates of household subscription (as its proponents have implied) exist, one would logically expect Arizona's penetration rate to likewise, be among the highest in the nation. Table 1 below compares the change in penetration rates for Arizona with all other of the Qwest states and for the nation as a whole.

Table 1. *Household Penetration Rates for Telephone Service by State*
(Nov., 1983 - July, 1998)

State	1983	1998	Change
AZ	88.80%	91.00%	2.20%
CO	94.40%	95.80%	1.40%

[5] Section 254 of the Telecommunications act of 1996 (47 U.S.C. § 2549e)) requires that all subsidies be made explicit, and that the prices for telecommunications services be just, reasonable, and cost-based.
[6] *COMSAT Corp. v. FCC,* 250 F.3d 931, 938-940 (5th Cir. 2001).

ID	89.50%	93.40%	3.90%
IA	95.40%	97.30%	1.90%
MN	96.40%	97.70%	1.30%
MT	92.80%	93.90%	1.10%
NE	94.00%	96.70%	2.70%
NM	85.30%	89.80%	4.50%
ND	95.10%	96.50%	1.40%
OR	91.20%	96.80%	5.60%
SD	92.70%	93.10%	0.40%
UT	90.30%	97.40%	7.10%
WA	92.50%	95.50%	3.10%
WY	89.70%	94.80%	5.10%
Total USA	91.40%	94.10%	2.70%

Source: Federal Communications Commission, *Monitoring Report.* 2000.

The data in Table 1 indicates that while both the national average penetration rates and those for Arizona specifically have increased in the fifteen years studied, the penetration rates for Arizona have remained below the national average for the duration. Moreover, at the beginning and the end of the study period, Arizona's rank as second lowest penetration rate in the 14 state Qwest region has remained unchanged.

III. Comprehensive Access Reform is Entirely Consistent with the Public Interest

Q. WHY IS ACCESS REFORM CONSISTENT WITH THE PUBLIC INTEREST?

A. Moving beyond the arguments presented above, one should suspect that the current access regime imposes substantial public interest harms and generates few, if any, public interest benefits. Thus, the policy shift embodied in the Telecommunications Act of 1996 and the ACC's pro-competitive initiatives dating back nearly a decade is that competition, rather than strict public utility

regulation, is the best vehicle for consumer protection. It is worth re-emphasizing that the general purpose of the federal Act is:

> to promote competition and reduce regulation to secure for American telecommunications consumers, lower prices, higher quality services and the rapid deployment of new telecommunications and information technology.[7]

The Act and the FCC's Orders that implement it comprise fundamental sets of reform necessary to ensure that the promise of statutory rhetoric becomes reality for all consumers.[8] Indeed, it appears that the ACC is keenly aware of the importance of all three of the fundamental sets of reform as it drives through to implement the goals of the Act by (a) completing the pricing of unbundled network elements and interconnection such that UNEs become a viable strategy for broad-based competitive entry; (b) ensuring that Arizona's universal service rules are consistent with a competitive environment; and (c) embarking on comprehensive access reform with the instant proceeding.

Q. WHAT SENSE OF URGENCY EXISTS FOR ACCESS REFORM IN ARIZONA?

A. Preliminarily, I assume it is *not* the case that consumers in Arizona are beating down the doors of the ACC demanding that access charges *per se* be set at economic cost any more than they demanded divestiture of the Bell System in

[7] 47 U.S.C. § 151 *et seq.*
[8] The reform strategy known as the "Competition trilogy" is fully explained in AT&T's Comments, Pp. 6-8.

1982. But, I would also argue that they *are* increasingly cognizant of and disgruntled by, the obvious difference in price between making an in-state toll call, say to Prescott, and an interstate toll call to New York or Washington, D.C. And, although the exact reason is obscured by the fact that access charges are a wholesale input (indeed the most costly input from which end user rates are derived), that does not absolve authorities of the responsibility to pursue action that protect the public from concentrations of economic power.

That said, and given the reduction in competitors in the telecommunications industry on an almost daily basis, reducing switched access charges to cost will result in more competition, lower intrastate toll rates overall, minimize the potential for anti-competitive cross-subsidization of other services and will bring end user price closer to cost. Moreover, if reform is implemented prior to Qwest gaining in-region interLATA relief under section 271 of the Act, it will eliminate the ability of Qwest to price squeeze it competitors out of the Arizona toll market.[9]

Q. HOW WOULD YOU CHARACTERIZE THE INTRASTATE SWITCHED ACCESS CHARGE REGIME IN ARIZONA TODAY?

A. Access rates in Arizona are currently among the highest in the nation -- a condition that persists despite the well understood and widely-acknowledged facts that access rates set at many multiples of economic cost are (a) a barrier to competitive entry in the provision of local services; (b) patently discriminatory

[9] See AT&T Comments, pp. 29-31 and Exhibit 1.

toward certain classes of consumers, (c) a pricing distortion that effects the prices charged for all other telecommunications services; and (d) a catalyst in the emergent trend toward the re-monopolization of the telecommunications industry.[10]

Q. HAVE YOU DONE ANY ANALYSES COMPARING ARIZONA'S RATES WITH THOSE IN OTHER STATES?

A. Yes. Understanding that the exact cost of access for any given IXC is a function of, among other things the variability inherent in the transport components of access rates, I have prepared three sets of comparisons of the switched access rates in Arizona with those of 22 other states. By providing three snapshot state rankings, it is possible to begin to gain an understanding of how excessive Arizona's current rates are.

- Exhibit NJB-1 provides a comparison of the average unit cost of access among the major ILEC carriers (formerly, RBOCs) for Arizona and 22 other states. In this analysis, Arizona ranks 5th highest for the wholesale rates charged to IXCs for provisioning access services

- Exhibit NJB-2 provides a comparison of the average ICO switched access rates in Arizona in the same 22 states. In this analysis, Arizona ranks 3rd highest in the wholesale rates charges to IXCs for provisioning access services.

[10] The threat of re-monopolization is argued at length in AT&T's Comments, pp. 26-31; 35 & 36.

- Exhibit NJB-3 provides a comparison again between Arizona and the same 22 states that aggregates RBOC, ICO, and CLEC access charges. In this analysis, Arizona ranks 6th highest in the wholesale charges to IXCs for the provision of access services.

By any one or all three measures, this condition persists at a time when, arguably, toll services, for which access charges are the single largest wholesale input, are at least as socially valuable as are local services. Consumers in Arizona spend, on average, 28% more for toll services than they do for local services.[11] Inasmuch as, toll charges are such a substantial portion of the total telephone bill of Arizona's consumers, reduction of access to cost based rates will make telephone service in the entire state more affordable.

Q. WHAT IS THE LIKELY OUTCOME IF SWITCHED ACCESS CHARGES ARE *NOT* REDUCED TO ECONOMIC COST IN ARIZONA?

A. The longer access remains at extraordinarily high multiples of cost, the greater will be the incentive for *all carriers* to engage in what one economist termed twenty years ago "directly unproductive profit seeking activity."[12] That is, the pursuit of regulatory rents diverts precious time and attention away from the provision of services that Arizona consumers need and want and thus, is at odds with any definition of the public interest. For consumers, the pricing distortion to toll services that this condition portends, has the effect of suppressing the demand

[11] See, for example, AT&T Access Comments, Table 1. *Comparison of End-User Revenue for Local and Toll Services*, p. 5. See also, *State-by-State Telephone Revenue and Universal Service Data.* April 2001. Federal Communications Commission Industry Analysis Division Common Carrier Bureau. Table 5, p.17.

for toll services as it simultaneously diminishes competition, hence choice, overall.

And, the effect on telephone competition is substantial. Aside from the fact that it provides the incumbent with a unique competitive advantage in that all of its calls in a certain category (*i.e.*, intraLATA toll) are insulated from competition, and some of its calls generate *both* competitive and monopoly payments, it precludes obvious competitive pricing options by either the incumbent or the new competitors, that would materially benefit the public.

Q. CAN YOU SHOW HOW ACCESS CHARGES IMPACT THE RATES FOR TOLL SERVICES CHARGED TO CONSUMERS IN ARIZONA?

A. Yes. An (admittedly) simplistic, but nonetheless enlightening, view of the relationship between access charges and the rates for long distance services paid by consumers in Arizona today is provided by Exhibit NJB-4 attached to this testimony.[13] The histogram on NJB-4 compares three scenarios (one for each of three columns labeled "Qwest," "ICO Average," and "Citizens Telecommunications Company of Arizona") and in doing so, depicts the following relationships:

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[12] Bhagwati, Jagdish. "Directly Unproductive Profit Seeking (DUP) Activities." *Journal of Political Economy,* 90 (1982):988-1002.

[13] Because the histogram is constructed from a consumer's perspective of a 10 cent toll call in Arizona, it is necessary as a point of departure to assume both side of the call are carried by the same ILEC. It is true that the amount of access could be less *or more* than depicted depending on the combination of carriers involved in the origination and termination of any given call.

(a) The portion of the rate for one minute of toll calling priced at $.10/mou to a *consumer* in Arizona that is comprised of access charges (shaded dark gray);[14]

(b) The portion of the access charges inherent in the retail rate of $.10/min. that comprises the cost to produce one minute of access charges;[15] and;

(c) The margin between the cost of access and the retail rate -- evident only for the column labeled "Qwest." For the other two columns (ICO Ave. and Citizens Tel.), the cost of access *exceeds* the retail price of the call and is, literally, "off the chart."

What is readily apparent, is (a) the wide variation in the level of access charges charged by the ILEC community in Arizona today and (b) the portion of access charges that comprise ten cent retail call. What is not so readily apparent is because Section 254(g) of the Act requires IXC rates to remain averaged, the inability to deaverage retail toll rates leads to another pricing distortion in Arizona. That is, Qwest's consumers are "subsidizing" the toll calling for the consumers of other ILECs, and to some extent, CLEC carriers in Arizona.

[14] The most prevalent rate for one minute of long distance calling in AZ today is approximately $.10, found at http:www.abelltolls.com

[15] Indicated by the checkered portion of each column at a proxy of $.005, the current interstate ATS rate for Qwest.

IV. Efficiency and "Non-Discrimination" Provide the Underlying Logic for Comprehensive Intrastate Access Reform

Q. PLEASE EXPLAIN THE IMPORTANCE OF ACHIEVING EFFICIENCY AND NON-DISCRIMINATION IN THE CONTEXT OF ACCESS REFORM.

A. Understanding the end goal of reform to be no less than access services priced at economic cost, the grand unified public interest is best served by promoting efficiency (in investment and use) and competitive neutrality. Adherence to these principles will mitigate the current system of regulatory arbitrage, monopoly abuse, and other pricing distortions arising from the conditions and their attendant consequences explained in Sections II and III and in the testimony of Dr. Lehr. This is because the bottleneck inputs in Arizona to which competitors need access, remain today, more than six years after the passage of the 1996 Act, squarely under the control of the incumbent local exchange carriers.

Q. WHAT DOES "EFFICIENCY IN INVESTMENT AND USE" IMPLY?

A. Preliminarily, the measure of costs to which prices converge in competitive markets -- whether wholesale or retail markets -- is forward looking economic cost. Incremental cost represents the additional cost to society of producing a particular good or service and thus incremental cost -based prices encourage efficient consumption and investment.

Efficiency with respect to investment decision-making implies that a carrier will, as it would in a competitive marketplace, decide whether to expand or enter a new market by comparing the expected costs of expansion or entry with the expected incremental revenue such expansion or entry will produce.

Efficient utilization of the network requires that the rates end-users pay be based on the costs associated with their usage of the network. Thus, an end user generally should be charged only for the costs she or he causes and should not be charged for cost caused by others or that would have been incurred in the absence of the end-users usage of the network.

Q. WHAT IS IMPLED BY NON-DISCRIMINATORY PRICING IN THE CONTEXT OF ACCESS REFORM?

A. Inasmuch as switched access charges, priced at many multiples of economic cost, have been historically justified for universal service purposes, non-discrimination or, in the alternative, "competitive neutrality," as defined by the FCC means that:

> universal service and support mechanisms and rules neither unfairly advantage or disadvantage one provider over another, and neither unfairly favor one technology nor disfavor one technology over another. [16]

[16] Before the federal communications Commission, In the Matter of Federal-State Joint Board on Universal Service , CC Docket No. 96-45. FCC 97-157, *re.*, May 8, 1997. ¶ 47.

Q. ARE IXCS COMPETITIVELY DISADVANTAGED IF ACCESS CHARGES REMAIN IN EXCESS OF ECONOMIC COST?

A. Yes, of course. Equally important, however, Arizona's *consumers* of the IXCs (the *same* consumers that are Arizona's local rate payers) are required ultimately to bear this asymmetric burden, thus depriving them -- as a significant subset of "American telecommunications consumers" -- of one of the three stated statutory goals, *i.e.*, "lower prices."[17] The cure for this obvious ill is both obvious and simple: access rates at forward-looking costs.

Q. NONETHELESS, IF PUBLIC POLICY IN ARIZONA DETERMINES THAT A SUPPORT MECHANISM IS WARRANTED TO KEEP THE PRICE OF BASIC SERVICE LOW, WHAT POLICY DESIGN PRINCIPLES SHOULD PREVAIL?

A. By definition, a subsidy is a mechanism that takes a dollar from one Arizonan and gives it to another. In doing so, regardless of intent, it will create a distortion to the prices for other telecommunications service. Any subsidy, therefore, should be designed carefully such that it creates the least amount of distortion to the prices for all other telecommunications services. Principles for the design of any subsidy mechanism such that it is competitively neutral in all respects requires that the subsidy be (a) explicit, (b) narrowly targeted, (c) broadly funded, (d) portable, and (e) administered by a neutral third party. Presumably a state

[17] 47 U.S.C. ¶ 151 *et.seq.*

universal service (here the AUSF) fund is the mechanism through which this policy is implemented.

V. A Framework for Comprehensive Access Reform in Arizona

Q. BEFORE YOU PROCEED, PLEASE SUMMARIZE THE NATURE OF ACCESS CHARGES.

A. Certainly. Access services are provided by local exchange carriers (LECs) to toll carriers for the purpose of originating and terminating long-distance calls. Such services are from an engineering perspective, no more and no less than the functions of transport and termination. Termination is simply the function of switching a call at the end-office and delivering the call to the receiving party located within the geographic region served by that end-office. Termination is sometimes called origination when referring to a call that it is outward bound, that is, originated by the end-user. Whether originated or terminated, the call is the same. Transport is the transmission of a call between a LEC's end office and either (a) another end office within the LECs serving area (i.e., a local call) or (b) the point of presence (POP) of a toll carrier (i.e., a long distance call). This call may pass through a tandem switch depending on the configuration of the network.

But, what is important to keep in mind is whether the call is local, going from one end-office to another within the LEC's service area or whether it is a call received from or handed off to a toll carrier, the basic function is the same.

Q. FOR PURPOSES OF REVISING THE EXISTING ACCESS RATE DESIGN, IS IT ADVISABLE TO BIFURCATE THE ANALYSES OF CURRENT ACCESS CHARGE REGIME INTO COST-BASED AND NON-COST-BASED COMPONENTS?

A. Yes. The nature of access charges today results in two categories of rates by employing this distinction. Current access charges that have *no basis* in cost are the common carrier line charge (CCL) and, where employed, the so-called residual interconnection charge (RIC). Switching, transport, and signaling generally comprise the usage sensitive, legitimately cost-based access charges. Accordingly, the rate design for switched access requires elimination of the CCL and any other residually-derived charges since they have no cost basis and the lowering of the remaining true cost-based access charges to economic cost. As discussed below, the CCL, or a similar subsidy charge may be retained by the Commission going forward for public policy reasons. However, consistent with the subsidy design principles, articulated previously, that would be an *explicit* subsidy collected from all end-users (i.e., broadly funded) and not an implicit subsidy generated by a single service.

Q. HOW SHOULD THE ACC DETERMINE THE PRICE FOR THE COST-BASED ELEMENTS?

A. Consistent with the purpose of the Act and the FCCs Orders, and to avoid all pitfalls associated with regulatory arbitrage and monopoly abuse, all switching, transport, and signaling rate elements should be set at forward-looking economic cost or TELRIC. The TELRIC construct, defined by the FCC, is the total long-

run incremental cost of the element plus reasonable allocation of forward-looking common costs.[18] The economic underpinnings of the TELRIC construct are fully developed in Dr. Lehr's testimony.

Q. WHAT POLICY TOOLS ARE AVAILABLE TO THE ACC FOR PURPOSES OF DESIGNING RATES AND IMPLEMENTING COMPREHENSIVE REFORM?

A. Solving this policy puzzle requires the systematic analysis of multiple options, cost estimations, and program evaluation techniques and as such requires access to a full compliment of policy tools. Policy tools include but are not limited to (a) a mechanism for cost determination for all carriers such as the HAI Model; (b) end user rate re-balancing, and (c) cost recovery mechanisms such as a state subscriber line charge (SLC) and/or the AUSF. It makes little sense to constrain the ACC initially by taking any of these tools "off the table" regardless of current rules that may, likewise, be ripe for reform.[19] Thus, in AT&T's view, all of these policy tools should be considered for crafting the policy and its process for such a comprehensive undertaking.

Q. HOW DOES AT&T RECOMMEND THAT THE REFORM PROCESS PROCEED?

A. Without question, the easiest element to address, precisely because it is *not* cost-based, is the CCL. Determination of its magnitude does not require a fully litigated cost inquiry. The pertinent issues are (a) the magnitude of the CCL, a

[18] 47 U.S.C. § 51.505.
20 For example, the current AUSF rules may need revision.

matter resolved by tariffed rates; (b) the portion of the CCL that should remain in the system as an explicit support mechanism; and (c) cost recovery.

Q. WHAT PRINCIPLE GOVERNS COST RECOVERY OF THE CCL TO THE EXTENT THAT THIS REVENUE STREAM IS RETAINED?

A. To the extent, the CCL is deemed necessary, the pricing principle applicable to cost recovery of the CCL is cost-causation. CCL, a non-cost based element should be removed from the current rate design and thereafter be recovered from the cost-causer, i.e., the end user. Furthermore, the Act's nondiscrimination mandate and the FCC's rules mandate portability of any subsidy mechanism, [20] thus the amount deemed necessary should be recovered through a state-imposed SLC that is fully portable to whatever carrier wins the customer.

Q. WHAT IS THE MAGNITUDE OF THE CCL IN ARIZONA TODAY?

A. Absent company specific data, it is not possible for AT&T to report the exact size of the non-cost based CCL in Arizona. Preliminary analysis is possible, however, employing the data contained in Table 2 of AT&T's Comments filed in this docket. Table 2 contains an approximation of the excess contribution, here subsidy, contained in access charges for all carriers and is estimated to be $156 million annually.[21] The proportion of CCL comprising that total will vary by carrier. But, for this purpose, using tariff information, the CCL is estimated to be

[20] USO, ¶ 286
[21] AT&T Comments, pp. 16.

40 % of the total.[22] Thus, a rough approximation of the CCL is $62.4 Million annually.

Q. HOW MIGHT ELIMINATION OF THE CCL IMPACT END-USER RATES?

A. If the entire CCL revenue stream is deemed necessary, the impact, whether recovered through increased local rates a state SLC, or some combination thereof is approximately $ 1.75 per line per month.[23]

Q. HOW SHOULD THE TRAFFIC SENSITIVE RATES BE PRICED?

A. The traffic sensitive rates should be reduced to economic cost. Of necessity, this portion of the reform process requires an investigation of the cost of switching and transport rate elements -- by carrier. The cost of these rate elements for Qwest is the subject of the UNE cost investigation underway in Docket No. T-00000A-00-194. For all other carriers in Arizona, HAI 5.2a may also be employed for a similar purpose relative to switched access rates, i.e. transport, switching and signaling. It should be noted that included in the output of the HAI Model, when used to estimate the economic cost of UNEs, is the average for switched access charges.

Q. HAVE YOU PERFORMED ANY PRELIMINARY ANALYSES USING HAI5.2a FOR ARIZONA'S INDEPENDENT TELEPHONE COMPANIES?

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[22] This estimate is derived by simply averaging the proportion of originating and terminating CCL from the Qwest and NECA exchange access tariffs. No attempt has been made to construct a weighted average at this time. Obviously, any number of "what-ifs" can be calculated by changing the assumed % of contribution from the CCL. And, a more systematic analyses would account for the asymmetry in the rates between originating and terminating access.

[23] The calculation is $62.4 M divided by 2.971M loops / 12 = $1.74 per line per month. The loop count is taken from 2000 NECA Study Area Detail, USF 3013-0, results for year end, 1999.

A. Yes. Using default inputs and owing to the lack of any company specific usage data, a preliminary analysis using HAI5.2a produces an estimate of 1.7cents for the cost of access for Arizona's ICOs. Although, it is AT&T's position that this estimate is, in all probability, quite conservative, it demonstrates the variance between the current ICO average access rate (approximately $.10) and this first pass at the estimation of the cost to actually produce a minute of access.

Q. IT IS FREQUENTLY ARGUED BY THE ICO COMMUNITY THAT COST PROXY MODELS DO NOT ACCURATELY ESTIMATE THEIR COSTS. WHAT IS AT&T'S RESPONSE?

A. AT&T doe not agree with those arguments and for the most part, they are more rhetoric than the result of reasoned analyses. To the contrary, when the HAI model is employed with fidelity, it is capable of producing accurate estimates for *any* carrier and *any* technology. Such is the recent experience in Minnesota where a reasoned and collaborative inquiry into the costs of providing services for the independent telephone companies is currently underway using HAI5.2a. The Department of Commerce in Minnesota in its Comments filed in Docket No. PP999/CI-00-829 states in pertinent part that:

> The goal of this proceeding is to have accurate cost estimates for each exchange in Minnesota. The Department recommends that the Commission adopt the cost estimates developed using the HAI5.2a model
>
> ...
>
> The HAI5.2 Model has been sponsored by AT&T and WorldCom in a number of state UNE and USF cases. The sponsorship and the constant review that the model receives provides some security

that the model will be modified to reflect changes in prices and in the best available technologies used in the modeled network.

...

Any party has access to the HAI 5.2a model. The model with the revised data base purchased by the Department, was provided to all parties that asked for it.[24]

And, indeed, they did ask for it. There are some 86 independent telephone companies located in Minnesota that are intimately engaged in this comprehensive analytical process. Their opposition to the reform of access charges is often accompanied by what is nothing more than a diversionary tactic -- an attempt to allege the inability of any model to accurately estimate their costs.

Q. YOU POINTED OUT EARLIER THAT ONE OF THE GOALS OF THE 1996 ACT IS LOWER PRICES FOR *ALL* AMERICAN TELECOMMUNICATIONS CONSUMERS. DOES AT&T'S FRAMEWORK PORTEND SUCH AN OUTCOME FOR ALL CONSUMERS IN ARIZONA?

A. Yes. The ACC has seized upon the importance of *overall* reform and, as a result, is well-positioned to ensure that the markets envisioned by the Telecommunications Act of 1996 will materialize for the broad base of Arizona's consumers. That is because the ACC has recognized the critical importance of UNE pricing in its early decisions in Docket No. T-00000A-00-194; has signaled its intent to undertake comprehensive reform of the access charge regime in the

[24] In the Matter of Commission Investigation of Cost for Appropriate Level of Universal Service Support. Docket no. P999/CI-00-829. Comments of the Minnesota Department of Commerce, February 1, 2002. P.ii.

instant docket; and is contemplating the revision of the AUSF for consistency with federal funding mechanisms without having turned it into an unwieldy social program. Because these issues are part of and integrated whole, Arizona's consumers are well served by the Commission's efforts to examine and resolve them in concert.

Q. SHOULD THE ACC IMPLEMENT REFORM DIFFERENTLY FOR QWEST THAN FOR THE RURAL TELEPHONE COMPANIES?

A. Only with respect to timing for the traffic sensitive elements, but certainly not with respect to the pricing principles that should apply, the rate design, or for the elimination of the CCL and any other non-cost based rate.

The ACC is well along in the determination of the economic cost for transport and switching UNEs, hence access services, for Qwest (Docket No, T-00000A-00-194). A much less involved, although similar, process is possible for the independent telephone companies in Arizona using the same cost methodology.

Q. HOW SHOULD THE AUSF BE EMPLOYED IN THE ACCESS REFORM PROCESS?

A. Once access charges are reduced to economic cost and the CCL has been eliminated, the AUSF is the appropriate funding mechanism to provide explicit support for high cost loops and for low-income households -- to the extent needed. Although the current AUSF rules rightly require a showing (via a rate case) that a financial need exists before drawing from the fund -- presumably to ensure that carriers are not compensated for consumers that are already profitable

to serve -- a similar justification is made by revising the rules in Docket No. RT-00000H-97 such that it is consistent with the calculus for federal support mechanisms. That is, the size of the subsidy is a function of the economic cost to provide service compared to a benchmark.

Q. PLEASE SUMMARIZE AT&T'S RECOMMENDATION.

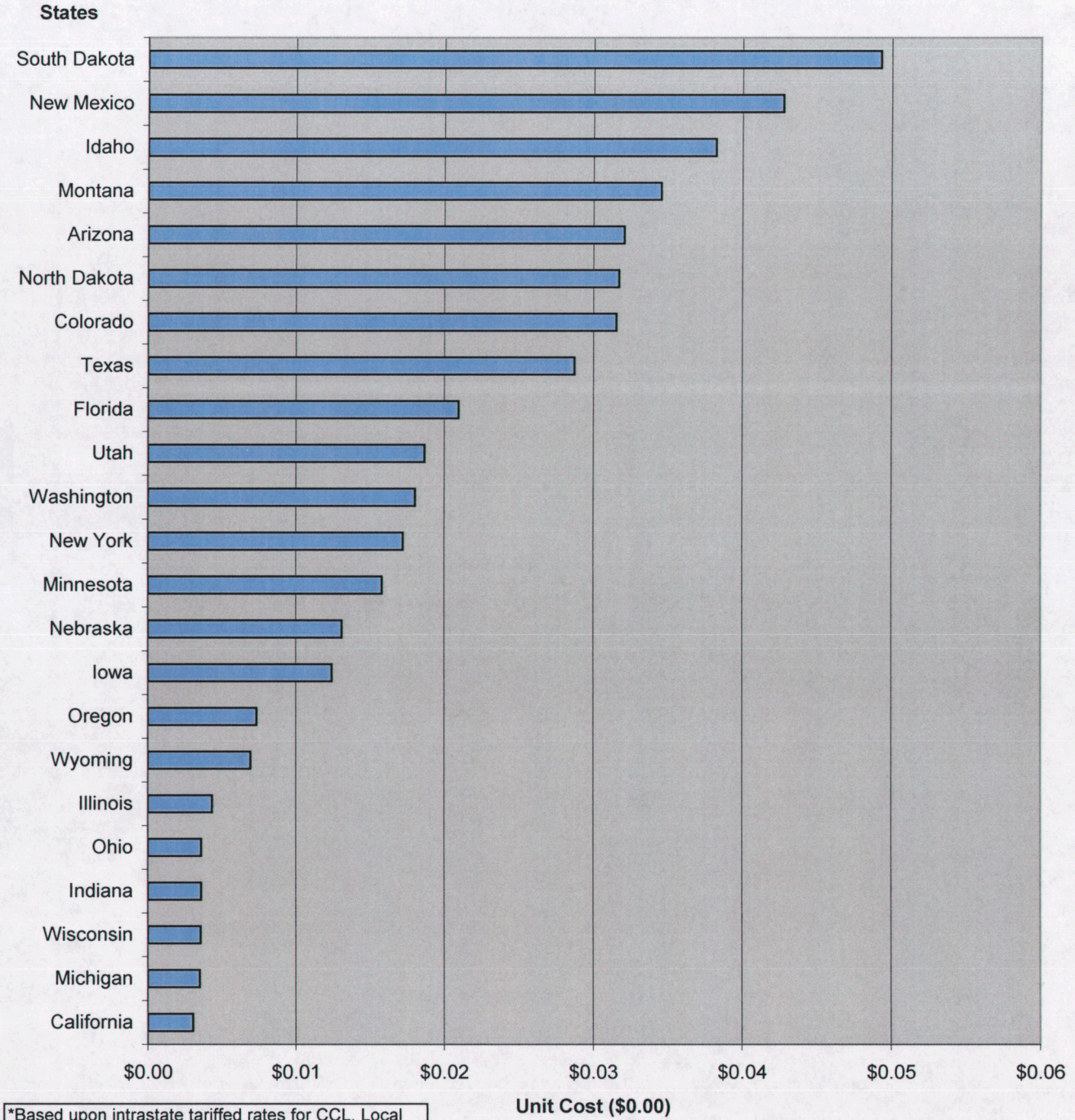
A. In simple sum, access charge reform should be accomplished by lowering access charges to economic cost, allowing all LECs, designated as ETCs, regardless of technology employed, to draw on an universal service fund to support high-cost loops. The mechanism used to fund universal service must be competitively neutral in all respects. That is, the support mechanism must be (a) explicit, (b) narrowly targeted, (c) broadly funded, (d) portable, and (e) administered by a neutral third party. With this approach, it is possible to move beyond the paralyzing specter of rural customers being forced to pay exorbitant rates for basic local service *and* at the same time making access to the socially valuable toll services ever more affordable.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes, at this time.

NJB-1

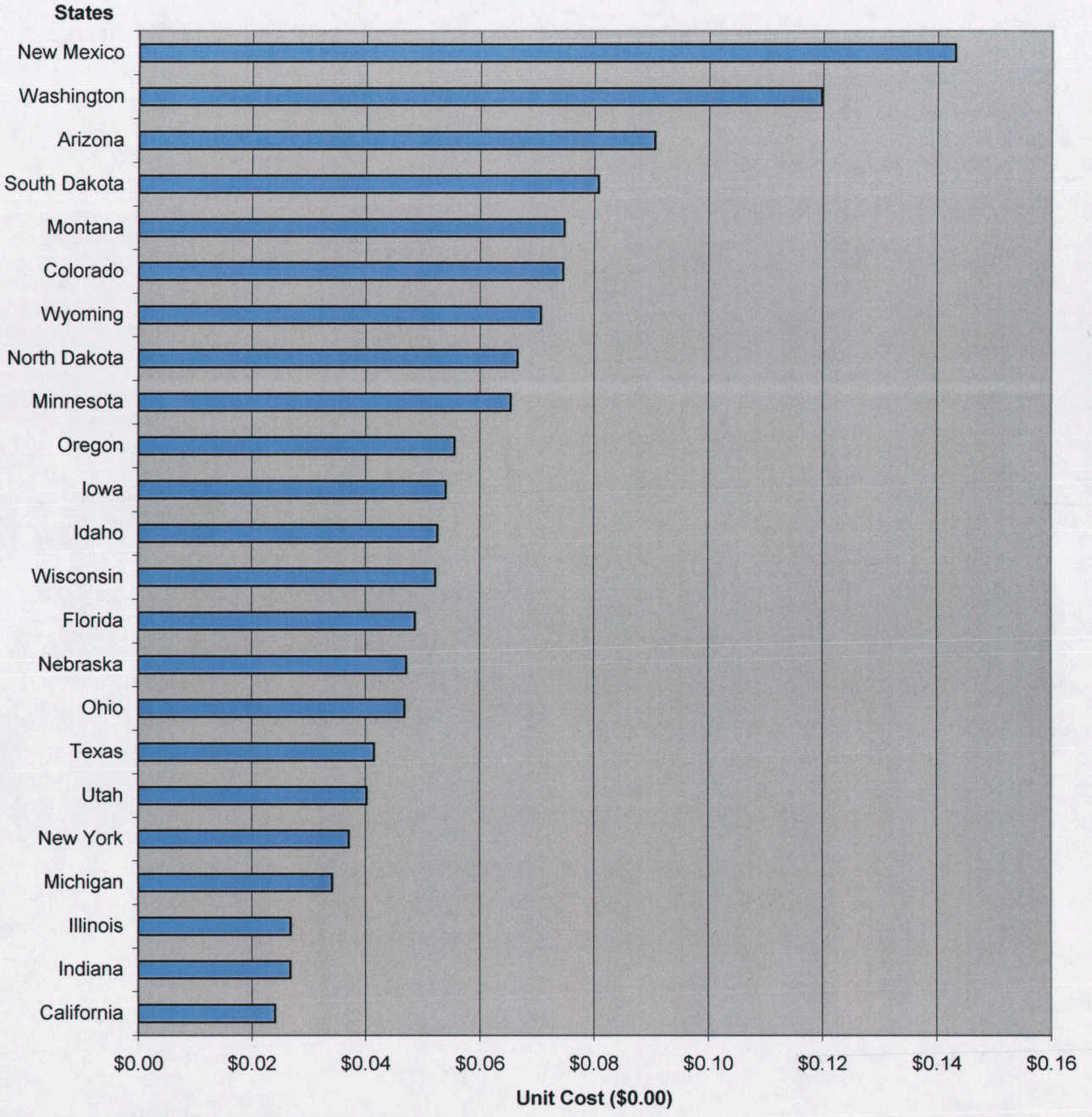
RBOC Access Rate per Minute (Selected States)



*Based upon intrastate tariffed rates for CCL, Local Switching, & Local Transport.
**Local Transport Assumptions:
1. LD Residential Call
2. Transport is 21 Miles
3. 80%/20% Direct versus Tandem Transport.

NJB-2

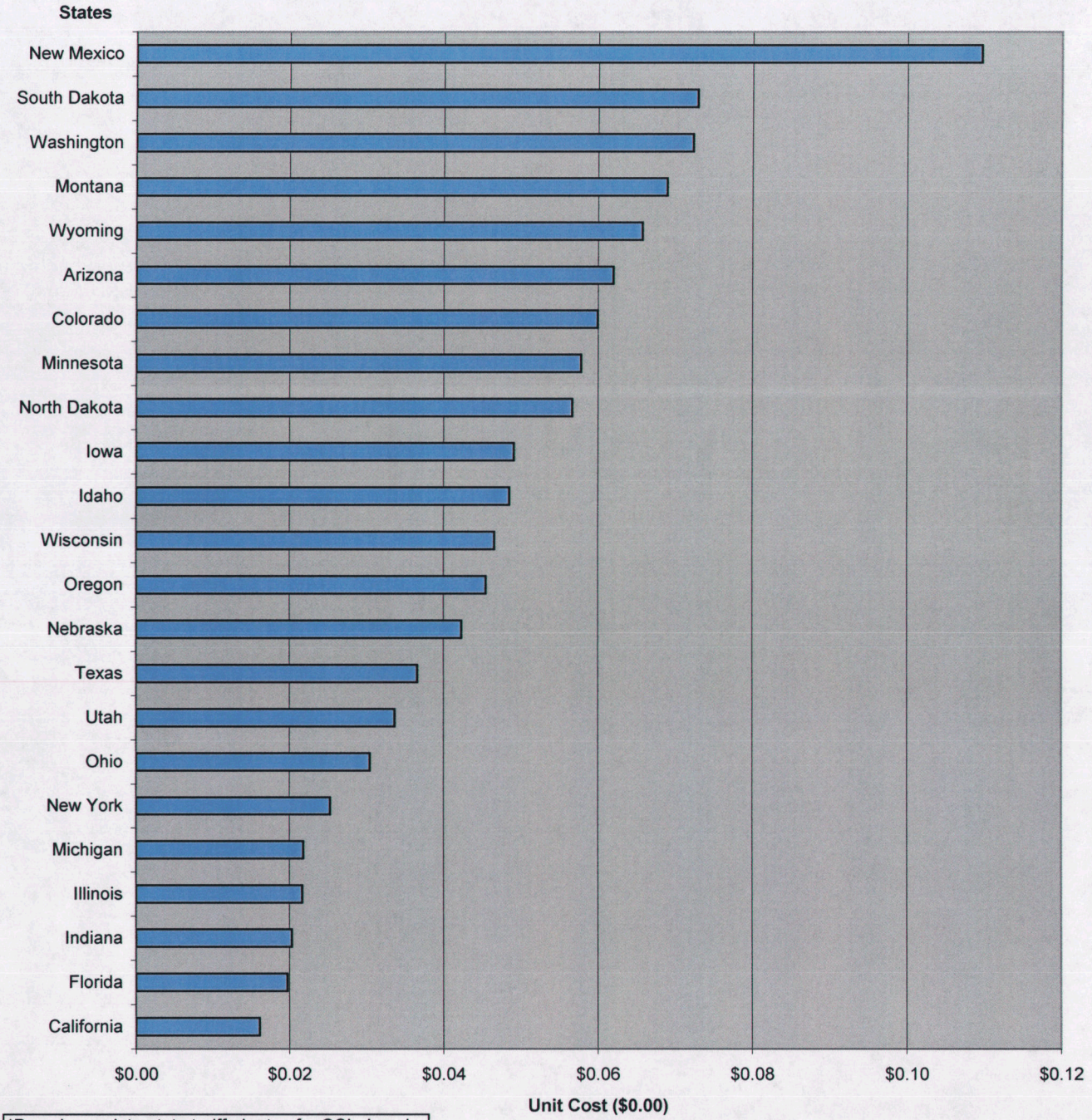
ICO Access Rate Per Minute (Selected States)



*Based upon intrastate tariffed rates for CCL, Local Switching, & Local Transport.
**Local Transport Assumptions:
1. LD Residential Call
2. Transport is 21 Miles
3. 80%/20% Direct versus Tandem Transport.

NJB-3

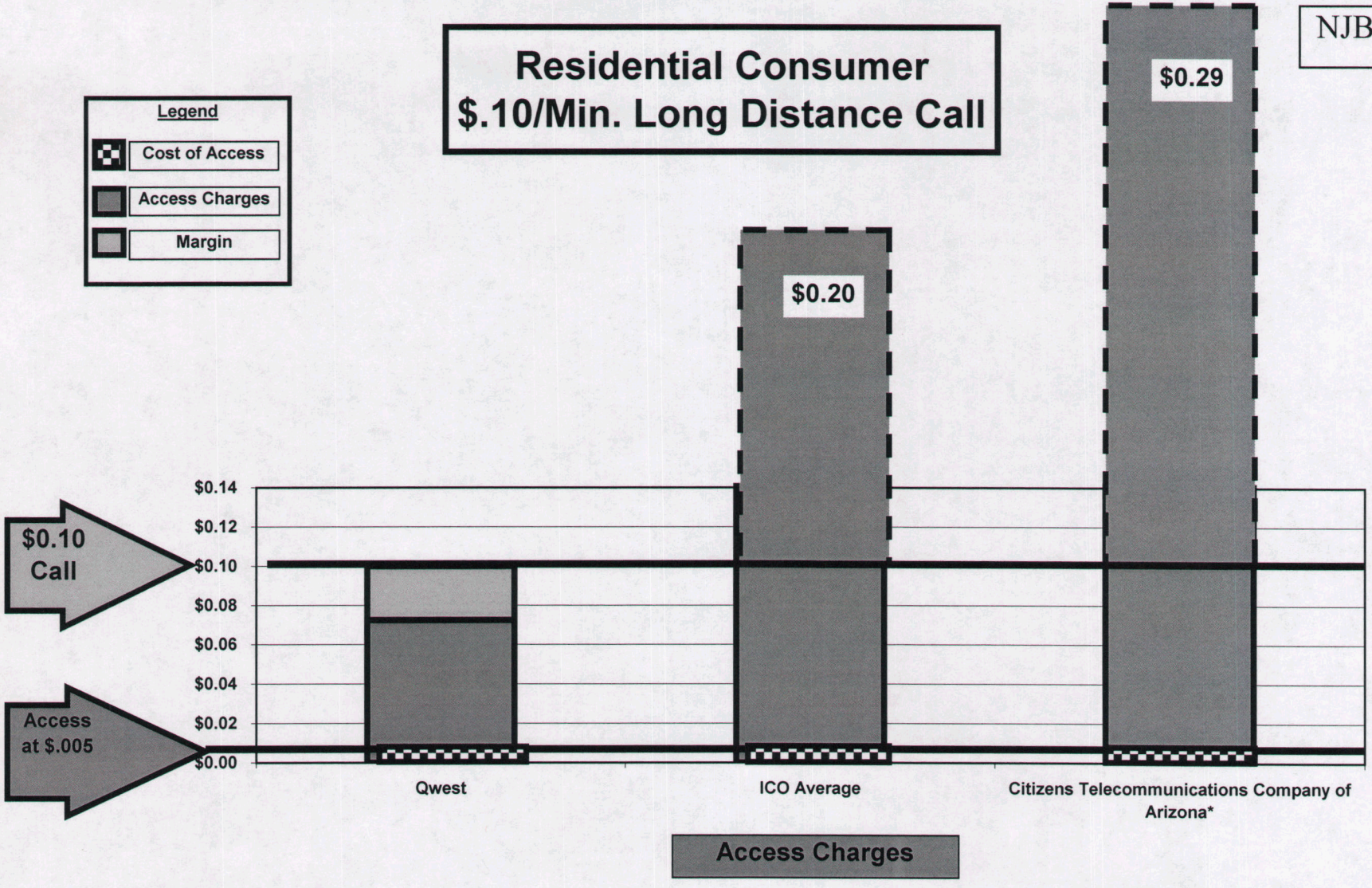
Statewide Average Access Rate per Minute (Selected States)



*Based upon intrastate tariffed rates for CCL, Local Switching, & Local Transport.
**Local Transport Assumptions:
1. LD Residential Call
2. Transport is 21 Miles
3. 80%/20% Direct versus Tandem Transport.

NJB-4

Residential Consumer
$.10/Min. Long Distance Call



$.10/Min LD rate - Source: www.abelltolls.com
*Arizona Access Tariff No. 1